

REMARKS BY DR. JAMES C. FLETCHER

ADMINISTRATOR

NATIONAL AERONAUTICS AND SPACE

ADMINISTRATION

PREPARED FOR DELIVERY

AT THE

AIAA, NATIONAL CAPITAL SECTION

LUNCHEON

FT. MCNAIR OFFICER'S CLUB

WASHINGTON, D. C.

OCTOBER 7, 1971

*First 4 pages
beginning
from the*

*Betty
No need to retype.
JCF.*

(1)

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THE GENERAL OUTLINES OF AMERICA'S SPACE PROGRAM FOR THE SEVENTIES WERE ESTABLISHED IN OUR CURRENT BUDGET. THIS PROGRAM, AS WE SEE IT, IS WELL PLANNED, WELL PRUNED, AND ABSOLUTELY VITAL TO THE FUTURE OF THIS NATION.

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SECOND POINT. I AM VERY CONCERNED ABOUT THE HEALTH OF THE AEROSPACE INDUSTRY. NASA PROGRAMS HAVE ADDED ECONOMIC IMPORTANCE AT THIS TIME BECAUSE THEY HELP STABILIZE THIS IMPORTANT INDUSTRY -- THIS IMPORTANT NATIONAL RESOURCE. THIS IS A VERY SIGNIFICANT REASON FOR MAINTAINING NASA PROGRAMS UP TO OR NEAR CURRENT LEVELS AT THIS TIME.

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IT WAS DEMONSTRATED IN THE APOLLO PROGRAMS, PARTICULARLY APOLLO 15, THAT MAN CAN PERFORM REWARDING SCIENTIFIC AND OPERATIONAL TASKS THAT MACHINES CANNOT BE PROGRAMMED TO DO. WE EXPECT TO DEMONSTRATE THIS FURTHER IN SKYLAB. WE ALSO ANTICIPATE THAT ASTRONAUTS FLYING THE SPACE SHUTTLE WILL BE ABLE TO DECREASE GREATLY THE COSTS AND GREATLY INCREASE THE PERFORMANCE OF UNMANNED SPACECRAFT BY DEPLOYING THEM IN ORBIT, BY SERVICING THEM IN ORBIT, OR BY RETURNING THEM TO EARTH FOR REPAIRS OR REFURBISHMENT. WE SIMPLY CANNOT HOPE TO CUT SPACE COSTS SENSIBLY BY POSING THE QUESTION: MEN OR MACHINES? WE MUST HAVE BOTH, IN SPACE AS ON EARTH, IN THIS DECADE.

NEAR-EARTH SPACE HAS BECOME A PLACE, A REGION, A SPHERE OF ACTIVITY AS IMPORTANT TO OUR NATIONAL INTEREST AND SECURITY AS ANY PLACE ON EARTH OUTSIDE OUR OWN BORDERS.

BECAUSE NEAR-EARTH SPACE IS A PLACE WHERE MEN CAN LIVE AND WORK, IT WILL BE INHABITED BY MAN. THE ONLY QUESTION IS WHETHER WE ARE WILLING TO ALLOW SOLE OCCUPANCY TO THE SOVIET UNION, OR ANY OTHER POWER. TO ME, THIS IS UNTHINKABLE.

EVEN ASSUMING THAT AMERICANS COULD LEARN TO LIVE COMFORTABLY WITH RUSSIANS ORBITING OVERHEAD WHILE WE REMAINED EARTHBOUND, THE IMPACT ON OUR PRESTIGE AS A NATION AND A WORLD POWER COULD BE A DISASTER. TO PEOPLE THROUGHOUT THE WORLD IT WOULD APPEAR THAT THE UNITED STATES HAD LOST ITS SENSE OF DESTINY, ITS NATIONAL RESOLVE, OR ITS ECONOMIC VIABILITY AS DEMONSTRATED BY ITS INABILITY TO COMPETE IN SPACE WITH THE SOVIET UNION FOR SUSTAINED PERIODS. THAT, AS WE HAVE ALREADY SEEN AT THE TIME OF THE FIRST SPUTNIK, COULD HAVE AN UNSETTLING EFFECT ON WORLD AFFAIRS AND ON OUR OWN PEACE OF MIND AND SELF RESPECT.

FURTHERMORE, IT IS PRUDENT TO CONTINUE TO DEVELOP OUR CAPABILITIES FOR MANNED SPACE FLIGHT SIMPLY BECAUSE WE DO NOT KNOW, AND CANNOT NOW FORESEE, WHAT MEN WILL DISCOVER IN SPACE OR WHAT USES WILL BE MADE OF SPACE. FOR THIS REASON ALONE, IT WOULD BE RISKY, IF NOT IRRESPONSIBLE, TO GROUND OUR ASTRONAUTS WHILE SOVIET COSMONAUTS OPERATE ALONE IN THIS NEW REALM, WITH EVER GREATER PROFICIENCY.

FOR THESE REASONS, I STRONGLY SUPPORT THE SPACE SHUTTLE AS THE NEXT LOGICAL STEP TO DEVELOP OUR NATIONAL CAPABILITIES FOR USING SPACE MORE ECONOMICALLY AND MORE EFFECTIVELY, WITH MANNED AND UNMANNED SPACECRAFT, FOR BOTH CIVILIAN AND DEFENSE PURPOSES.

FIFTH POINT. I SHARE THE GROWING CONCERN THAT THE UNITED STATES IS LAGGING IN EFFORTS TO DEVELOP NEW TECHNOLOGY FOR COMMERCIAL AND MILITARY AVIATION. WE KILLED THE SST WHILE BRITAIN AND FRANCE WENT AHEAD TO BUILD THE CONCORDE, AND THE SOVIET UNION BUILT A COMPETING VERSION. THE EUROPEANS -- AND OUR CANADIAN NEIGHBORS -- ARE AHEAD OF US IN SHORT TAKE OFF AND LANDING AIRCRAFT. THE QUESTION MUST BE ASKED, HOW LONG CAN WE, AS A GREAT NATION, AFFORD TO BE MERE SPECTATORS WHILE OTHERS MOVE AHEAD IN AIRCRAFT TECHNOLOGY?

I BELIEVE NASA HAS A MANDATE TO KEEP THIS COUNTRY IN THE
FOREFRONT OF AVIATION TECHNOLOGY -- ^{AND I BELIEVE THIS IS VITALLY} ~~WHICH IS SO~~ IMPORTANT TO
OUR DOMESTIC ECONOMY AND WORLD TRADE POSITION, AND TO OUR
NATIONAL SECURITY. WE CLEARLY NEED TO DO MORE AERONAUTICAL
RESEARCH, NOT LESS. OUR PLANNING REFLECTS THIS.

FOR THESE TIMELY REASONS -- AND OTHER LONG-STANDING
REASONS FAMILIAR TO YOU -- WE ARE PREPARED TO ADVOCATE AND
DEFEND IN ANY FORUM, WHERE QUESTIONS ARISE, THE GENERAL APPROACH
AND CONTENT OF OUR CURRENTLY APPROVED SPACE AND AERONAUTICS
PROGRAMS FOR THE SEVENTIES.

TO RETURN FOR A MOMENT TO THE TOPIC YOU INADVERTENTLY
ASSIGNED ME -- PARKING ORBIT, RE-ENTRY, OR ESCAPE
TRAJECTORY? -- I CAN ASSURE YOU THAT WE DO NOT INTEND TO
SHIFT THE GEARS OF OUR SPACE PROGRAM INTO THE "PARK" POSITION;
WE ARE GEARED UP FOR CONTINUED STEADY AND IMPRESSIVE PROGRESS
IN THOSE AREAS OF SPACE ACTIVITY WHICH WE CONSIDER MOST
REWARDING SCIENTIFICALLY OR MOST IMPORTANT TO OUR NATIONAL
SECURITY.

WE HAVE ENTERED THE SPACE AGE. WE CANNOT BACK OUT.
WE CANNOT RE-ENTER THE WORLD WE KNEW BEFORE 1957.

I THINK AN ACTIVE SPACE PROGRAM WILL BE A PART OF OUR
NATIONAL LIFE FOR AS LONG AS WE ENDURE AS A NATION.

SPACE SYSTEMS WILL PLAY AN EVER INCREASING ROLE IN
GLOBAL AND DOMESTIC COMMUNICATIONS; IN FORECASTING,
UNDERSTANDING, AND PERHAPS DOING SOMETHING ABOUT THE
WEATHER; IN BETTER MANAGEMENT OF WORLD RESOURCES; IN THE
STRUGGLE TO PROTECT OUR ENVIRONMENT AND ENHANCE THE
QUALITY OF LIFE ON THIS PLANET.

MORE AND MORE THE NEWS OF THE WORLD, THE ENTERTAINMENT
OF THE WORLD, THE SCHOOL LESSONS OF THE WORLD, WILL BE DELIV-
ERED THROUGH SPACE SYSTEMS. AIR AND SHIP TRAFFIC WILL BE
DIRECTED FROM SPACE. SPACE SYSTEMS WILL BE AVAILABLE TO
MONITOR ARMS LIMITATION AGREEMENTS THAT PROTECT THE PEACE
OF THE WORLD. NEW SOURCES OF UNIVERSAL POWER MORE AWESOME
BY FAR THAN THE ATOMIC ENERGY IN OUR SUN WILL BE DISCOVERED,
AND UNDERSTOOD, AND POSSIBLY PUT TO USE.

WITHIN A FEW YEARS THERE WILL BE NO TIME OF DAY OR NIGHT, YEAR IN AND YEAR OUT, WHEN MEN ARE NOT WORKING IN ORBIT ABOVE THE EARTH. AND IT IS UP TO US, IN DECISIONS TO BE MADE THIS YEAR IN THIS CAPITAL, WHETHER THESE MEN IN ORBIT WILL INCLUDE AMERICANS. ✓

BEFORE 1957, FOR ALL PRACTICAL PURPOSES, SPACE WASN'T THERE. BUT TODAY IT IS. AND THE ONLY QUESTION IS, WILL AMERICANS BE THERE? THIS IS NOT THE TIME FOR THE DEBATES OF 1958 ALL OVER AGAIN. IF ANYONE IS THINKING SERIOUSLY OF DE-ORBITING THE AMERICAN SPACE PROGRAM, HE IS A 20TH CENTURY RIP VAN WINKLE WHO HAS BEEN ASLEEP FOR 14 YEARS.

AS SO FAR AS "ESCAPE TRAJECTORY" IS CONCERNED, WE DO EXPECT TO SEND OUR NEW OUTER PLANETS SPACECRAFT MORE THAN THREE BILLION MILES ON A WORKING JOURNEY LASTING 10 YEARS, WHICH IS ABOUT AS MUCH "ESCAPE" AS WE CAN MANAGE IN THIS DECADE, AT LEAST.

I DON'T BELIEVE I NEED TO TALK TO YOU IN DETAIL ABOUT OUR SPACE PROGRAM FOR THE SEVENTIES. MANY OF YOU HELPED PLAN IT AND ARE WORKING ON IT TODAY, IN ONE WAY OR ANOTHER. I HOPE THAT ALL OF YOU AGREE THAT IT IS ABOUT THE BEST PROGRAM WE COULD PUT TOGETHER TO MEET THE OBJECTIVES SET BY CONGRESS AND THE PRESIDENT, CONSIDERING THE RECOGNIZED NEED FOR FISCAL RESTRAINT AT THIS TIME.

DESPITE THE STRONG BI-PARTISAN SUPPORT GIVEN TO OUR PLANS FOR THE SEVENTIES BY THE ADMINISTRATION AND CONGRESS, THERE IS STILL A GREAT DEAL OF WORK TO BE DONE TO GAIN THE UNDERSTANDING AND SUPPORT OUR PROGRAM DESERVES FROM THE PUBLIC AT LARGE.

IT WAS 14 YEARS AGO THIS WEEK THAT THE FIRST SPUTNIK WENT INTO ORBIT. ALMOST OVERNIGHT, A STRONG CONSTITUENCY FOR A MAJOR SPACE EFFORT DEVELOPED IN THIS COUNTRY. UNFORTUNATELY, OUR VERY SUCCESSES IN GEMINI AND APOLLO HAVE TENDED TO WIPE OUT THAT CONSTITUENCY -- SO LONG AS WE LEAD IN SPACE, THE AMERICAN PUBLIC, UNDERSTANDABLY ENOUGH, HAS OTHER THINGS TO WORRY ABOUT.

BUT WE NEED TO RE-ESTABLISH THIS CONSTITUENCY. WE NEED BROAD SUPPORT FROM THE AMERICAN PEOPLE FOR A SENSIBLE, SUSTAINED EFFORT THAT KEEPS US IN THE LEAD -- SO THAT WE DO NOT HAVE TO GO INTO THE "CATCH UP" DRILL AGAIN IN THIS DECADE OR THE NEXT. WE MUST GET PEOPLE TO UNDERSTAND THAT UNLESS WE MAINTAIN A WELL-BALANCED SPACE PROGRAM, IT WILL COST MUCH MORE IN THE LONG RUN TO RESURRECT OUR CAPABILITIES WHEN WE FIND OURSELVES NO LONGER IN THE LEAD.

NASA HAS AN EDUCATIONAL JOB TO DO -- AND WE NEED YOUR HELP. ^{IT WAS} ~~THAT~~ WAS THE MESSAGE I ^{GAVE LAST WEEK IN L.A.} ~~HAD FOR THE~~ ANNUAL AEROSPACE LUNCHEON OF THE LOS ANGELES CHAMBER OF COMMERCE WHEN I SPOKE THERE ~~LAST~~ FRIDAY. IT IS A MESSAGE I WANT TO REPEAT TO YOU TODAY. YOU ARE A VERY ARTICULATE GROUP, WHEN IT COMES TO EXPLAINING THE SPACE PROGRAM, AND YOU HAVE ACCESS TO MANY DIFFERENT CHANNELS FOR REACHING THE GENERAL PUBLIC.

WE NEED YOUR HELP TO EXPLAIN NOT ONLY WHAT WE DO, BUT WHY WE DO IT. WE NEED YOUR HELP TO WIN BROAD PUBLIC SUPPORT FOR A PROGRAM THAT WILL KEEP AMERICA FIRST IN SPACE, WITHOUT THE GOAD OF FEAR AND SELF-DOUBT THAT COMES WITH BEING SECOND, WITH BEING OUT-CLASSSED.

I AM IMPRESSED -- AND CONCERNED -- BY THE SIZE OF THE INVESTMENT THE SOVIET UNION IS MAKING IN SPACE. THEIR EFFORT ^{is 10 to 4 times our own depending on how its figured} ~~IS ABOUT 60 PERCENT GREATER THAN OUR OWN AT THE PRESENT TIME.~~ THEY SHOW NO SIGNS OF SLACKENING THEIR EFFORT. THEIR SALYUT SPACE STATION APPEARS TO BE MERELY A FORERUNNER FOR LARGER AND MORE VERSATILE SPACE STATIONS. THEY LEAD US BY A SIGNIFICANT MARGIN IN PLANETARY EXPLORATION AND SPACE STATION CAPABILITY.

THE SPACE SHUTTLE SHOULD ENABLE US TO REMAIN COMPETITIVE WITH THE SOVIET UNION IN USING NEAR-EARTH SPACE, BUT ONLY IF WE DO PROCEED TO DEVELOP THE SHUTTLE WITHIN THIS DECADE AS WE HAVE PLANNED.

I AM ENCOURAGED BY THE PROGRESS WE HAVE MADE IN DISCUSSING THE POSSIBILITIES OF GREATER COOPERATION IN SPACE WITH THE SOVIET UNION. BUT I WANT TO STRESS THE POINT THAT WE MUST CONTINUE TO INCREASE OUR OWN ABILITIES TO USE SPACE IF WE WANT THE SOVIETS TO REMAIN INTERESTED IN COOPERATION.

I WOULD LIKE TO MENTION VERY BRIEFLY SEVERAL OTHER MAJOR AREAS OF INTEREST OR CONCERN TO ME AT THIS TIME.

I WANT VERY MUCH TO CONTINUE THE PROCESS OF STRENGTHENING OUR CLOSE TIES WITH THE DEPARTMENT OF DEFENSE, AS OUR CHARTER REQUIRES US TO DO. WE WANT TO BE SURE THAT THE SPACE SHUTTLE WILL SERVE THE NEEDS OF ALL AGENCIES OF THE GOVERNMENT, INCLUDING DEFENSE NEEDS.

I WANT TO STRESS THE IMPORTANCE OF NASA PROGRAMS IN PRODUCING NEW TECHNOLOGY -- AND THE IMPORTANCE OF NEW TECHNOLOGY FOR STRENGTHENING OUR ECONOMY AND INCREASING OUR ABILITY TO MEET PRESSING SOCIAL PROBLEMS AND PROVIDE JOBS AND A HIGH STANDARD OF LIVING FOR ALL OF OUR CITIZENS.

I AM CONCERNED ABOUT THE PRESENT SHORTAGE OF SUITABLE JOBS FOR THE YOUNG MEN AND WOMEN WHO ARE FINISHING THEIR UNIVERSITY WORK IN SCIENCE AND ENGINEERING. WE NEED THIS "NEW BLOOD" NOW IN GOVERNMENT AND IN INDUSTRY; AND WE WILL FEEL THE LOSS STILL MORE SOME YEARS HENCE WHEN WE NEED INNOVATIVE PEOPLE AT THE MIDDLE MANAGEMENT LEVEL WITH BOTH EXCELLENT TRAINING AND EXPERIENCE IN THEIR FIELDS. BUT HOW ARE THESE YOUNG PEOPLE GOING TO GET THE EXPERIENCE THEY NEED -- AND THE COUNTRY NEEDS THEM TO HAVE -- IF WE DO NOT HAVE CHALLENGING JOBS FOR THEM? THIS IS A ^{extremely critical} ~~SERIOUS~~ PROBLEM FOR THE COUNTRY.

AS YOU MAY KNOW, I AM TAKING PART IN A PANEL AT THE AIAA ANNUAL MEETING ON OCTOBER 28 ON THE SUBJECT "THE AEROSPACE PROFESSIONAL -- WHAT IS HIS FUTURE?" I BELIEVE SOMEONE SUGGESTED A SUB-TITLE FOR THIS DISCUSSION, TOO: "THE AEROSPACE PROFESSIONAL -- MUST HE BE A MIGRATORY WORKER?"

INCIDENTALLY, I WAS VERY PLEASED TO NOTE THAT THE ANNUAL MEETING WILL BE DEVOTED IN LARGE PART TO THE KEYNOTE THEME, "TECHNOLOGY AND NATIONAL GROWTH." IT IS ^{IMP. FACT} ~~VERY GOOD~~ FOR THE COUNTRY THAT YOU ARE ^{PLAN TO EXAMINE THIS} ~~GOING INTO THAT THEME~~ IN DEPTH AT THIS TIME.

I WANT NASA PROGRAMS TO CONTINUE TO BE EXCELLENT EXAMPLES OF HOW LARGE SCALE R&D EFFORTS CAN BE MANAGED EFFICIENTLY AND CARRIED THROUGH TO COMPLETION WITHIN THE AMERICAN ECONOMIC AND POLITICAL SYSTEM. I WANT TO PAY ESPECIAL ATTENTION TO WAYS IN WHICH NASA EXPERIENCE IN SYSTEMS MANAGEMENT CAN BE UTILIZED ELSEWHERE IN OUR SOCIETY.

I WANT THE SPACE PROGRAM TO CONTINUE TO BE A SOURCE OF PRIDE, AND ENCOURAGEMENT, AND INSPIRATION FOR ALL AMERICANS. LOOK BACK OVER THE PAST 14 YEARS, AND SEE IF YOU CAN IDENTIFY ANY MAJOR UNDERTAKING OR EVENT THAT HAS MEANT MORE TO US AS A PEOPLE THAN OUR SUCCESSFUL FIRST STEPS INTO SPACE.

TRULY SIGNIFICANT ADVANCES IN SPACE WILL ALWAYS BE INSPIRING. TAKE APOLLO 15 AS AN EXAMPLE. APOLLO 15 CAME AFTER 24 PREVIOUS MANNED FLIGHTS AND THREE LANDINGS ON THE MOON, YET IT AROUSED A TREMENDOUS SENSE OF AMERICAN ACHIEVEMENT AT HOME AND ABROAD.

AS YOU KNOW, WE HAD ALREADY ATTAINED PRESIDENT KENNEDY'S GOAL SET IN 1961, AND APOLLO 15'S PURPOSE WAS ALMOST ENTIRELY TO REAP THE MAXIMUM SCIENTIFIC BENEFITS AND NOT NECESSARILY FOR PURPOSES OF NATIONAL PRESTIGE. DESPITE ALL THIS, MORE THAN 100 MILLION PERSONS WATCHED THE MISSION ON TELEVISION IN THIS COUNTRY ALONE, AND IT IS ESTIMATED THAT ALMOST THAT MANY MORE WATCHED IN EUROPE AND JAPAN.

THE FEELING OF MANY VIEWERS WAS WELL EXPRESSED, I BELIEVE, BY A 10-YEAR-OLD SITTING NEAR ME JUST AFTER THE LAUNCH. WHEN ASKED BY HIS FATHER WHAT HE THOUGHT ABOUT THE LAUNCH, HE UNHESITATINGLY REPLIED: "I THOUGHT ^{THAT} I WAS PROUD TO BE AN AMERICAN."

I AM CONCERNED THAT SOME WHO USE THE SLOGAN "NEW PRIORITIES" SEEM TO THINK THAT SHUTTING DOWN THE SPACE PROGRAM WOULD HELP SOLVE PRESSING SOCIAL PROBLEMS. I DO NOT AGREE. TO BEGIN WITH, THIS COUNTRY IS ALREADY SPENDING 42 CENTS OF EVERY FEDERAL TAX DOLLAR FOR HUMAN RESOURCES PROGRAMS AND 34 CENTS FOR NATIONAL DEFENSE, AND ONLY 1.4 CENTS ON SPACE.

DIVERTING SPACE FUNDS TO OTHER USES WOULD AMOUNT TO ONLY A DROP IN THE BUCKET. BUT THE LOSS WOULD BE GREAT -- IN TERMS OF A DECLINING ECONOMY, A SECOND-RATE TECHNOLOGY, A DISPIRITED AMERICA.

THE NASA BUDGET NOW EQUALS ABOUT THREE-TENTHS OF ONE PERCENT OF THE GROSS NATIONAL PRODUCT. I AM SURE THE STIMULATING EFFECT OF THE SPACE PROGRAM ON THE NATION'S ECONOMY ADDS MUCH MORE THAN THAT TO THE GNP.

I JUST DON'T BELIEVE THAT THE KIND OF AMERICA THAT WOULD IGNORE THE CHALLENGE OF SPACE WOULD MAKE MUCH PROGRESS IN OTHER FIELDS EITHER. THE KIND OF AMERICA THAT SAID "NO" TO SPACE, THAT SAID LET RUSSIA DO IT WOULD BE A COUNTRY ON THE WAY OUT.

BUT OUR COUNTRY IS TOO YOUNG, TOO VIGOROUS, TOO WISE TO THINK IN THESE NEGATIVE TERMS. I BELIEVE THAT WITH A POSITIVE APPROACH TO SPACE WE CAN MAKE OUR SPACE PROGRAMS PAY FOR THEMSELVES MANY TIMES OVER, AND MAKE AMERICA A HAPPIER AND HEALTHIER PLACE BECAUSE OF OUR SPACE EFFORT.

NATIONS NEED EXERCISE JUST AS INDIVIDUALS DO. THE SPACE EFFORT IS THE KIND OF EXERCISE THAT KEEPS US ON OUR TOES, TONES OUR MUSCLES, BRIGHTENS OUR OUTLOOK.

THE REMARK HAS BEEN MADE THAT THE FUTURE ISN'T WHAT IT USED TO BE. LET US NOT BE DISMAYED BY THIS APT COMMENTARY ON THE TIMES IN WHICH WE LIVE. LET US WORK IN THE NASA PROGRAM TO MAKE THE FUTURE MORE LIKE WE WANT IT TO BE.

I THINK WE WHO ARE ACTIVE IN SPACE AND AERONAUTICS HOLD THE KEY TO A BETTER FUTURE FOR OUR COUNTRY AND FOR MANKIND. IT IS A MANDATE GIVEN TO US BY THE AMERICAN PEOPLE, AN IMMENSE RESPONSIBILITY. I WANT VERY MUCH TO WORK WITH YOU IN DOING WHAT IS RIGHT FOR OUR COUNTRY IN SPACE, AND IN DOING IT IN THE RIGHT WAY AT THE RIGHT PACE.

I THINK WE ARE ON THE RIGHT TRACK. WE HAVE PLANNED WELL FOR THE SEVENTIES. I AM ANXIOUS TO GET ON WITH THE ACTION.

(MORE)

TO SUMMARIZE:

WE HAVE A PROGRAM THAT IS ABSOLUTELY VITAL TO THE FUTURE OF THIS NATION. IT IS ONE I INTEND TO FIGHT FOR. I AM COUNTING ON YOU TO JOIN ME. WE HAVE A GREAT AND IMPORTANT MESSAGE TO GET ACROSS.

WE CAN'T DEPEND ON THE "OTHER FELLOW" TO DO IT -- AND WE CERTAINLY DON'T WANT TO LET THE SOVIETS DO IT FOR US WITH ANOTHER SHOCK LIKE THE FIRST SPUTNIK.

YOU HAVE MY PROMISE THAT I WILL SEEK EVERY OPPORTUNITY TO DELIVER THIS MESSAGE ~~to our message~~ -- THROUGHOUT THIS COUNTRY. AND, WE MUST ALL WORK HARDER TO GET THIS MESSAGE THROUGH CLEARLY AND DIRECTLY TO THE CITIZENS AND TAX PAYERS WHO ULTIMATELY DETERMINE THE DESTINY OF THIS COUNTRY.

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NEWS



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EVEN ASSUMING THAT AMERICANS COULD LEARN TO LIVE COMFORTABLY WITH RUSSIANS ORBITING OVERHEAD WHILE WE REMAINED EARTHBOUND, THE IMPACT ON OUR PRESTIGE AS A NATION AND A WORLD POWER COULD BE A DISASTER. TO PEOPLE THROUGHOUT THE WORLD IT WOULD APPEAR THAT THE UNITED STATES HAD LOST ITS SENSE OF DESTINY, ITS NATIONAL RESOLVE, OR ITS ECONOMIC VIABILITY AS DEMONSTRATED BY ITS INABILITY TO COMPETE IN SPACE WITH THE SOVIET UNION FOR SUSTAINED PERIODS. THAT, AS WE HAVE ALREADY SEEN AT THE TIME OF THE FIRST SPUTNIK, COULD HAVE AN UNSETTLING EFFECT ON WORLD AFFAIRS AND ON OUR OWN PEACE OF MIND AND SELF RESPECT.

FURTHERMORE, IT IS PRUDENT TO CONTINUE TO DEVELOP OUR CAPABILITIES FOR MANNED SPACE FLIGHT SIMPLY BECAUSE WE DO NOT KNOW, AND CANNOT NOW FORESEE, WHAT MEN WILL DISCOVER IN SPACE OR WHAT USES WILL BE MADE OF SPACE. FOR THIS REASON ALONE, IT WOULD BE RISKY, IF NOT IRRESPONSIBLE, TO GROUND OUR ASTRONAUTS WHILE SOVIET COSMONAUTS OPERATE ALONE IN THIS NEW REALM, WITH EVER GREATER PROFICIENCY.

FOR THESE REASONS, I STRONGLY SUPPORT THE SPACE SHUTTLE AS THE NEXT LOGICAL STEP TO DEVELOP OUR NATIONAL CAPABILITIES FOR USING SPACE MORE ECONOMICALLY AND MORE EFFECTIVELY, WITH MANNED AND UNMANNED SPACECRAFT, FOR BOTH CIVILIAN AND DEFENSE PURPOSES.

FIFTH POINT. I SHARE THE GROWING CONCERN THAT THE UNITED STATES IS LAGGING IN EFFORTS TO DEVELOP NEW TECHNOLOGY FOR COMMERCIAL AND MILITARY AVIATION. WE KILLED THE SST WHILE BRITAIN AND FRANCE WENT AHEAD TO BUILD THE CONCORDE, AND THE SOVIET UNION BUILT A COMPETING VERSION. THE EUROPEANS -- AND OUR CANADIAN NEIGHBORS -- ARE AHEAD OF US IN SHORT TAKE OFF AND LANDING AIRCRAFT. THE QUESTION MUST BE ASKED, HOW LONG CAN WE, AS A GREAT NATION, AFFORD TO BE MERE SPECTATORS WHILE OTHERS MOVE AHEAD IN AIRCRAFT TECHNOLOGY?

I BELIEVE NASA HAS A MANDATE TO KEEP THIS COUNTRY IN THE FOREFRONT OF AVIATION TECHNOLOGY -- WHICH IS SO IMPORTANT TO OUR DOMESTIC ECONOMY AND WORLD TRADE POSITION, AND TO OUR NATIONAL SECURITY. WE CLEARLY NEED TO DO MORE AERONAUTICAL RESEARCH, NOT LESS. OUR PLANNING REFLECTS THIS.

FOR THESE TIMELY REASONS -- AND OTHER LONG-STANDING REASONS FAMILIAR TO YOU -- WE ARE PREPARED TO ADVOCATE AND DEFEND IN ANY FORUM WHERE QUESTIONS ARISE THE GENERAL APPROACH AND CONTENT OF OUR CURRENTLY APPROVED SPACE AND AERONAUTICS PROGRAMS FOR THE SEVENTIES.

TO RETURN FOR A MOMENT TO THE TOPIC YOU INADVERTENTLY ASSIGNED ME -- PARKING ORBIT, RE-ENTRY, OR ESCAPE TRAJECTORY? -- I CAN ASSURE YOU THAT WE DO NOT INTEND TO SHIFT THE GEARS OF OUR SPACE PROGRAM INTO THE "PARK" POSITION; WE ARE GEARED UP FOR CONTINUED STEADY AND IMPRESSIVE PROGRESS IN THOSE AREAS OF SPACE ACTIVITY WHICH WE CONSIDER MOST REWARDING SCIENTIFICALLY OR MOST IMPORTANT TO OUR NATIONAL SECURITY.

WE HAVE ENTERED THE SPACE AGE. WE CANNOT BACK OUT.
WE CANNOT RE-ENTER THE WORLD WE KNEW BEFORE 1957.

I THINK AN ACTIVE SPACE PROGRAM WILL BE A PART OF OUR
NATIONAL LIFE FOR AS LONG AS WE ENDURE AS A NATION.

SPACE SYSTEMS WILL PLAY AN EVER INCREASING ROLE IN
GLOBAL AND DOMESTIC COMMUNICATIONS; IN FORECASTING,
UNDERSTANDING, AND PERHAPS DOING SOMETHING ABOUT THE
WEATHER; IN BETTER MANAGEMENT OF WORLD RESOURCES; IN THE
STRUGGLE TO PROTECT OUR ENVIRONMENT AND ENHANCE THE
QUALITY OF LIFE ON THIS PLANET.

MORE AND MORE THE NEWS OF THE WORLD, THE ENTERTAINMENT
OF THE WORLD, THE SCHOOL LESSONS OF THE WORLD, WILL BE DELIV-
ERED THROUGH SPACE SYSTEMS. AIR AND SHIP TRAFFIC WILL BE
DIRECTED FROM SPACE. SPACE SYSTEMS WILL BE AVAILABLE TO
MONITOR ARMS LIMITATION AGREEMENTS THAT PROTECT THE PEACE
OF THE WORLD. NEW SOURCES OF UNIVERSAL POWER MORE AWESOME
BY FAR THAN THE ATOMIC ENERGY IN OUR SUN WILL BE DISCOVERED,
AND UNDERSTOOD, AND POSSIBLY PUT TO USE.

WITHIN A FEW YEARS THERE WILL BE NO TIME OF DAY OR NIGHT, YEAR IN AND YEAR OUT, WHEN MEN ARE NOT WORKING IN ORBIT ABOVE THE EARTH. AND IT IS UP TO US, IN DECISIONS TO BE MADE THIS YEAR IN THIS CAPITAL, WHETHER THESE MEN IN ORBIT WILL INCLUDE AMERICANS.

BEFORE 1957, FOR ALL PRACTICAL PURPOSES, SPACE WASN'T THERE. BUT TODAY IT IS. AND THE ONLY QUESTION IS, WILL AMERICANS BE THERE? THIS IS NOT THE TIME FOR THE DEBATES OF 1958 ALL OVER AGAIN. IF ANYONE IS THINKING SERIOUSLY OF DE-ORBITING THE AMERICAN SPACE PROGRAM, HE IS A 20TH CENTURY RIP VAN WINKLE WHO HAS BEEN ASLEEP FOR 14 YEARS.

AS SO FAR AS "ESCAPE TRAJECTORY" IS CONCERNED, WE DO EXPECT TO SEND OUR NEW OUTER PLANETS SPACECRAFT MORE THAN THREE BILLION MILES ON A WORKING JOURNEY LASTING 10 YEARS, WHICH IS ABOUT AS MUCH "ESCAPE" AS WE CAN MANAGE IN THIS DECADE, AT LEAST.

I DON'T BELIEVE I NEED TO TALK TO YOU IN DETAIL ABOUT OUR SPACE PROGRAM FOR THE SEVENTIES. MANY OF YOU HELPED PLAN IT AND ARE WORKING ON IT TODAY, IN ONE WAY OR ANOTHER. I HOPE THAT ALL OF YOU AGREE THAT IT IS ABOUT THE BEST PROGRAM WE COULD PUT TOGETHER TO MEET THE OBJECTIVES SET BY CONGRESS AND THE PRESIDENT, CONSIDERING THE RECOGNIZED NEED FOR FISCAL RESTRAINT AT THIS TIME.

DESPITE THE STRONG BI-PARTISAN SUPPORT GIVEN TO OUR PLANS FOR THE SEVENTIES BY THE ADMINISTRATION AND CONGRESS, THERE IS STILL A GREAT DEAL OF WORK TO BE DONE TO GAIN THE UNDERSTANDING AND SUPPORT OUR PROGRAM DESERVES FROM THE PUBLIC AT LARGE.

IT WAS 14 YEARS AGO THIS WEEK THAT THE FIRST SPUTNIK WENT INTO ORBIT. ALMOST OVERNIGHT, A STRONG CONSTITUENCY FOR A MAJOR SPACE EFFORT DEVELOPED IN THIS COUNTRY. UNFORTUNATELY, OUR VERY SUCCESSES IN GEMINI AND APOLLO HAVE TENDED TO WIPE OUT THAT CONSTITUENCY -- SO LONG AS WE LEAD IN SPACE, THE AMERICAN PUBLIC, UNDERSTANDABLY ENOUGH, HAS OTHER THINGS TO WORRY ABOUT.

BUT WE NEED TO RE-ESTABLISH THIS CONSTITUENCY. WE NEED BROAD SUPPORT FROM THE AMERICAN PEOPLE FOR A SENSIBLE, SUSTAINED EFFORT THAT KEEPS US IN THE LEAD -- SO THAT WE DO NOT HAVE TO GO INTO THE "CATCH UP" DRILL AGAIN IN THIS DECADE OR THE NEXT. WE MUST GET PEOPLE TO UNDERSTAND THAT UNLESS WE MAINTAIN A WELL-BALANCED SPACE PROGRAM, IT WILL COST MUCH MORE IN THE LONG RUN TO RESURRECT OUR CAPABILITIES WHEN WE FIND OURSELVES NO LONGER IN THE LEAD.

NASA HAS AN EDUCATIONAL JOB TO DO -- AND WE NEED YOUR HELP. THAT WAS THE MESSAGE I HAD FOR THE ANNUAL AEROSPACE LUNCHEON OF THE LOS ANGELES CHAMBER OF COMMERCE WHEN I SPOKE THERE LAST FRIDAY. IT IS A MESSAGE I WANT TO REPEAT TO YOU TODAY. YOU ARE A VERY ARTICULATE GROUP, WHEN IT COMES TO EXPLAINING THE SPACE PROGRAM, AND YOU HAVE ACCESS TO MANY DIFFERENT CHANNELS FOR REACHING THE GENERAL PUBLIC.

WE NEED YOUR HELP TO EXPLAIN NOT ONLY WHAT WE DO, BUT WHY WE DO IT. WE NEED YOUR HELP TO WIN BROAD PUBLIC SUPPORT FOR A PROGRAM THAT WILL KEEP AMERICA FIRST IN SPACE, WITHOUT THE GOAD OF FEAR AND SELF-DOUBT THAT COMES WITH BEING SECOND, WITH BEING OUT-CLASSSED.

I AM IMPRESSED -- AND CONCERNED -- BY THE SIZE OF THE INVESTMENT THE SOVIET UNION IS MAKING IN SPACE. THEIR EFFORT IS ABOUT 60 PERCENT GREATER THAN OUR OWN AT THE PRESENT TIME. THEY SHOW NO SIGNS OF SLACKENING THEIR EFFORT. THEIR SALYUT SPACE STATION APPEARS TO BE MERELY A FORERUNNER FOR LARGER AND MORE VERSATILE SPACE STATIONS. THEY LEAD US BY A SIGNIFICANT MARGIN IN PLANETARY EXPLORATION AND SPACE STATION CAPABILITY.

THE SPACE SHUTTLE SHOULD ENABLE US TO REMAIN COMPETITIVE WITH THE SOVIET UNION IN USING NEAR-EARTH SPACE, BUT ONLY IF WE DO PROCEED TO DEVELOP THE SHUTTLE WITHIN THIS DECADE AS WE HAVE PLANNED.

I AM ENCOURAGED BY THE PROGRESS WE HAVE MADE IN DISCUSSING THE POSSIBILITIES OF GREATER COOPERATION IN SPACE WITH THE SOVIET UNION. BUT I WANT TO STRESS THE POINT THAT WE MUST CONTINUE TO INCREASE OUR OWN ABILITIES TO USE SPACE IF WE WANT THE SOVIETS TO REMAIN INTERESTED IN COOPERATION.

I WOULD LIKE TO MENTION VERY BRIEFLY SEVERAL OTHER MAJOR AREAS OF INTEREST OR CONCERN TO ME AT THIS TIME.

I WANT VERY MUCH TO CONTINUE THE PROCESS OF STRENGTHENING OUR CLOSE TIES WITH THE DEPARTMENT OF DEFENSE, AS OUR CHARTER REQUIRES US TO DO. WE WANT TO BE SURE THAT THE SPACE SHUTTLE WILL SERVE THE NEEDS OF ALL AGENCIES OF THE GOVERNMENT, INCLUDING DEFENSE NEEDS.

I WANT TO STRESS THE IMPORTANCE OF NASA PROGRAMS IN PRODUCING NEW TECHNOLOGY -- AND THE IMPORTANCE OF NEW TECHNOLOGY FOR STRENGTHENING OUR ECONOMY AND INCREASING OUR ABILITY TO MEET PRESSING SOCIAL PROBLEMS AND PROVIDE JOBS AND A HIGH STANDARD OF LIVING FOR ALL OF OUR CITIZENS.

I AM CONCERNED ABOUT THE PRESENT SHORTAGE OF SUITABLE JOBS FOR THE YOUNG MEN AND WOMEN WHO ARE FINISHING THEIR UNIVERSITY WORK IN SCIENCE AND ENGINEERING. WE NEED THIS "NEW BLOOD" NOW IN GOVERNMENT AND IN INDUSTRY; AND WE WILL FEEL THE LOSS STILL MORE SOME YEARS HENCE WHEN WE NEED INNOVATIVE PEOPLE AT THE MIDDLE MANAGEMENT LEVEL WITH BOTH EXCELLENT TRAINING AND EXPERIENCE IN THEIR FIELDS. BUT HOW ARE THESE YOUNG PEOPLE GOING TO GET THE EXPERIENCE THEY NEED -- AND THE COUNTRY NEEDS THEM TO HAVE -- IF WE DO NOT HAVE CHALLENGING JOBS FOR THEM? THIS IS A SERIOUS PROBLEM FOR THE COUNTRY.

AS YOU MAY KNOW, I AM TAKING PART IN A PANEL AT THE AIAA ANNUAL MEETING ON OCTOBER 28 ON THE SUBJECT "THE AEROSPACE PROFESSIONAL -- WHAT IS HIS FUTURE?" I BELIEVE SOMEONE SUGGESTED A SUB-TITLE FOR THIS DISCUSSION, TOO: "THE AEROSPACE PROFESSIONAL -- MUST HE BE A MIGRATORY WORKER?"

INCIDENTALLY, I WAS VERY PLEASED TO NOTE THAT THE ANNUAL MEETING WILL BE DEVOTED IN LARGE PART TO THE KEYNOTE THEME, "TECHNOLOGY AND NATIONAL GROWTH." IT IS VERY GOOD FOR THE COUNTRY THAT YOU ARE GOING INTO THAT THEME IN DEPTH AT THIS TIME.

I WANT NASA PROGRAMS TO CONTINUE TO BE EXCELLENT EXAMPLES OF HOW LARGE SCALE R&D EFFORTS CAN BE MANAGED EFFICIENTLY AND CARRIED THROUGH TO COMPLETION WITHIN THE AMERICAN ECONOMIC AND POLITICAL SYSTEM. I WANT TO PAY ESPECIAL ATTENTION TO WAYS IN WHICH NASA EXPERIENCE IN SYSTEMS MANAGEMENT CAN BE UTILIZED ELSEWHERE IN OUR SOCIETY.

I WANT THE SPACE PROGRAM TO CONTINUE TO BE A SOURCE OF PRIDE, AND ENCOURAGEMENT, AND INSPIRATION FOR ALL AMERICANS. LOOK BACK OVER THE PAST 14 YEARS, AND SEE IF YOU CAN IDENTIFY ANY MAJOR UNDERTAKING OR EVENT THAT HAS MEANT MORE TO US AS A PEOPLE THAN OUR SUCCESSFUL FIRST STEPS INTO SPACE.

TRULY SIGNIFICANT ADVANCES IN SPACE WILL ALWAYS BE INSPIRING. TAKE APOLLO 15 AS AN EXAMPLE. APOLLO 15 CAME AFTER 24 PREVIOUS MANNED FLIGHTS AND THREE LANDINGS ON THE MOON, YET IT AROUSED A TREMENDOUS SENSE OF AMERICAN ACHIEVEMENT AT HOME AND ABROAD.

AS YOU KNOW, WE HAD ALREADY ATTAINED PRESIDENT KENNEDY'S GOAL SET IN 1961, AND APOLLO 15'S PURPOSE WAS ALMOST ENTIRELY TO REAP THE MAXIMUM SCIENTIFIC BENEFITS AND NOT NECESSARILY FOR PURPOSES OF NATIONAL PRESTIGE. DESPITE ALL THIS, MORE THAN 100 MILLION PERSONS WATCHED THE MISSION ON TELEVISION IN THIS COUNTRY ALONE, AND IT IS ESTIMATED THAT ALMOST THAT MANY MORE WATCHED IN EUROPE AND JAPAN.

THE FEELING OF MANY VIEWERS WAS WELL EXPRESSED, I BELIEVE, BY A 10-YEAR-OLD SITTING NEAR ME JUST AFTER THE LAUNCH. WHEN ASKED BY HIS FATHER WHAT HE THOUGHT ABOUT THE LAUNCH, HE UNHESITATINGLY REPLIED: "I THOUGHT I WAS PROUD TO BE AN AMERICAN."

I AM CONCERNED THAT SOME WHO USE THE SLOGAN "NEW PRIORITIES" SEEM TO THINK THAT SHUTTING DOWN THE SPACE PROGRAM WOULD HELP SOLVE PRESSING SOCIAL PROBLEMS. I DO NOT AGREE. TO BEGIN WITH, THIS COUNTRY IS ALREADY SPENDING 42 CENTS OF EVERY FEDERAL TAX DOLLAR FOR HUMAN RESOURCES PROGRAMS AND 34 CENTS FOR NATIONAL DEFENSE, AND ONLY 1.4 CENTS ON SPACE.

DIVERTING SPACE FUNDS TO OTHER USES WOULD AMOUNT TO ONLY A DROP IN THE BUCKET. BUT THE LOSS COULD BE GREAT -- IN TERMS OF A DECLINING ECONOMY, A SECOND-RATE TECHNOLOGY, A DISPIRITED AMERICA.

THE NASA BUDGET NOW EQUALS ABOUT THREE-TENTHS OF ONE PERCENT OF THE GROSS NATIONAL PRODUCT. I AM SURE THE STIMULATING EFFECT OF THE SPACE PROGRAM ON THE NATION'S ECONOMY ADDS MUCH MORE THAN THAT TO THE GNP.

I JUST DON'T BELIEVE THAT THE KIND OF AMERICA THAT WOULD IGNORE THE CHALLENGE OF SPACE WOULD MAKE MUCH PROGRESS IN OTHER FIELDS EITHER. THE KIND OF AMERICA THAT SAID NO TO SPACE, THAT SAID LET RUSSIA DO IT WOULD BE A COUNTRY ON THE WAY OUT.

BUT OUR COUNTRY IS TOO YOUNG, TOO VIGOROUS, TOO WISE TO THINK IN THESE NEGATIVE TERMS. I BELIEVE THAT WITH A POSITIVE APPROACH TO SPACE WE CAN MAKE OUR SPACE PROGRAMS PAY FOR THEMSELVES MANY TIMES OVER, AND MAKE AMERICA A HAPPIER AND HEALTHIER PLACE BECAUSE OF OUR SPACE EFFORT.

NATIONS NEED EXERCISE JUST AS INDIVIDUALS DO. THE SPACE EFFORT IS THE KIND OF EXERCISE THAT KEEPS US ON OUR TOES, TONES OUR MUSCLES, BRIGHTENS OUR OUTLOOK.

THE REMARK HAS BEEN MADE THAT THE FUTURE ISN'T WHAT IT USED TO BE. LET US NOT BE DISMAYED BY THIS APT COMMENTARY ON THE TIMES IN WHICH WE LIVE. LET US WORK IN THE NASA PROGRAM TO MAKE THE FUTURE MORE LIKE WE WANT IT TO BE. I THINK WE WHO ARE ACTIVE IN SPACE AND AERONAUTICS HOLD THE KEY TO A BETTER FUTURE FOR OUR COUNTRY AND FOR MANKIND. IT IS A MANDATE GIVEN TO US BY THE AMERICAN PEOPLE, AN IMMENSE RESPONSIBILITY. I WANT VERY MUCH TO WORK WITH YOU IN DOING WHAT IS RIGHT FOR OUR COUNTRY IN SPACE, AND IN DOING IT IN THE RIGHT WAY AT THE RIGHT PACE.

I THINK WE ARE ON THE RIGHT TRACK. WE HAVE PLANNED WELL FOR THE SEVENTIES. I AM ANXIOUS TO GET ON WITH THE ACTION.

TO SUMMARIZE:

WE HAVE A PROGRAM THAT IS ABSOLUTELY VITAL TO THE FUTURE OF THIS NATION. IT IS ONE I INTEND TO FIGHT FOR. I AM COUNTING ON YOU TO JOIN ME. WE HAVE A GREAT AND IMPORTANT MESSAGE TO GET ACROSS.

WE CAN'T DEPEND ON THE "OTHER FELLOW" TO DO IT -- AND WE CERTAINLY DON'T WANT TO LET THE SOVIETS DO IT FOR US WITH ANOTHER SHOCK LIKE THE FIRST SPUTNIK.

YOU HAVE MY PROMISE THAT I WILL SEEK EVERY OPPORTUNITY TO DELIVER THIS MESSAGE -- OUR MESSAGE -- THROUGHOUT THIS COUNTRY. AND, WE MUST ALL WORK HARDER TO GET THIS MESSAGE THROUGH CLEARLY AND DIRECTLY TO THE CITIZENS AND TAX PAYERS WHO ULTIMATELY DETERMINE THE DESTINY OF THIS COUNTRY.

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good it would feel when the blows ceased. But the blows did not cease. Finally, the Administration admitted what labor had been telling him all along: That his game plan was a plan for economic disaster. So, he went back to the drawing board and came up with another game plan, another plan in which the worker has been programmed as the unequal contributor to economic soundings and recovery. It's a game plan which gives to the wealthy and tells the poor to be patient. It's a game plan which pays homage to the outmoded economic myth of trickle down; that if you put all the goodies on the tables of corporate America, some of the crumbs will fall to the ground for the rest of us. It amounts to a cruel reversal of national priorities, ignoring not only the poor, but the schools, the cities, mass transit, and all the many other items on a depressingly long list of unmet needs.

It's a game plan based on the profit and loss statements of big business rather than on the pressing needs of people. It's a game plan which piles one tax bonanza for business on top of another tax bonanza—investment tax credit on top of a \$37 billion tax give-away in increased depreciation allowances.

In an Administration which out-Madison Avenues Madison Avenue, the latest tax bonanza for industry is termed a "Job Development Credit". It is called a "Job Development Credit", the President told Congress, because it is supposed to generate new jobs because industry would buy new machinery, although it isn't using what it has now. Well, the New York Times conducted a survey as to the likely effects of this so-called "Job Development Credit" and it reported its findings, as follows, on September 20:

"President Nixon's proposed tax credit of 10 percent on business investments in new machinery and equipment appears more likely to increase corporate profits than to create additional jobs for unemployed workers next year."

The Times did say that the tax credit "may"—I repeat "may"—create more jobs "in the long run". But, the five million unemployed aren't interested in the long run. They want jobs now. They can't wait to see if they will benefit from this latest try at "trickle down". What they want is not "trickle down"; they want some "bubble up"! Let's put America back to work first; and then industry will have all the incentive it needs to buy new machinery.

As of today, no one knows what Phase II of the President's program will bring when it's announced. We do, however, know this . . . the manner in which wage provisions of labor agreements were virtually nullified under the Presidential executive order is both alien to our democracy and dangerous in its implications. Labor's position since 1966, has been that controls should be across the board, should be fair and that the sacrifices should be equal. But the current wage-price freeze does not meet the test of equality and fairness.

We are not against the development of a long-range incomes policy and a program for economic stability. And, we certainly will make our share of the sacrifices necessary to stabilize our economy. But, we say to President Nixon, let those sacrifices in Phase II be equitably shared, as they are not in Phase I.

And, we say to the Congress: It is your job to make sure that equity and fairness do prevail . . . eliminate the tax gifts for big business; provide instead real tax reform; apply whatever controls are necessary across the board; adopt legislation that will fill our unfilled needs.

We of labor have every right to ask for a voice in the development of any long-range incomes policy that may be considered for the future. We have every right to insist that the terms of negotiated contracts are safe-

guarded under any stabilization program. We have every right to expect that the collective bargaining process, which has served this country well, is not destroyed as our government grapples with the economic problems that beset us.

In his address to the Joint Session of the Congress last month, the President said we should not undermine "the system" that produces America's wealth. He said we shouldn't malign the system because it has produced more abundance than any other system; because the "system" helps the poor, feeds the hungry and makes it possible to clean up our environment.

The "system", of course, is not helping the poor. There are almost 15 million Americans subsisting on welfare. More than 25 million are living in poverty in the midst of the abundance the President talked about. More families were officially classified as impoverished last year than in 1969. The system is not feeding the hungry. There are estimated to be some ten million chronically hungry people in America. In fact, the Nixon administration is even cutting back the school lunch program and thousands of low-income children will stop enjoying their first nutritious noon meals. The system is not cleaning up the environment. Many rivers and streams are open sewers.

Yes, the system has been working for some, but it has not been working for the poor, the hungry, the jobless, those who forego medical treatment because they cannot afford it, the cities, the schools. We are not maligning the system when we cite its shortcomings. We are simply saying that the system should work not only for some, or the majority; it should work for all. I believe that those who most strongly condemn the shortcomings of the American system, or what is happening in America, are more concerned about this Nation than many who say we should only talk about what is right about America.

We know what America stands for. We know its virtues very well. We know very well what's good and right about America. What we are saying is that the shortcomings of America are what need attention now; what require answers now. We are merely saying that America will be truly great if it fulfills its promises. Is the story of this Nation to be no more than a love affair with the gross national product? Or will the story of this Nation be that we fulfilled one promise of America?

We of organized labor are saying that fulfillment is our rightful priority; that the business of this country is not business; that the business of this country is people. We are saying that people can meet the challenge of living together as neighbors; that there can be only one America; not two divided by color. We are not the detractors of America; we are its greatest boosters.

We want a Nation moving ahead strongly, confidently, where the jobless have jobs, where the hungry have food, where the poor can live with some dignity, where every child attends a decent school, where there is fair taxation, where brotherhood is practiced as well as preached, where health care is available for all, where pollution is a memory, where the "system" really does work.

As we stated in our report to this Convention, the unity and determination of organized labor are among the greatest resources available to the nation, in its efforts to overcome its present economic and social ills.

I believe that the labor movement can help forge a national commitment to our rightful priorities so that all Americans will share in America's abundance, and so America does fulfill its promises. I believe that Labor can help lead our Nation toward that kind of a commitment. I believe it because I know what we want—not just for ourselves—but for all the people.

SOVIET POLICE PERSECUTION

Mr. ALLOTT. Mr. President, lest we forget, it is good to be reminded of the plight of the various nationalities in the Soviet Union.

Soviet police persecution is not a respecter of ethnic differences within the Soviet empire. And it is important the public opinion in the free world be focused on each and every instance of persecution that comes to our attention.

In this regard, Mr. President, I am deeply indebted to a constituent of mine, Mr. Ivan Stebelsky, of Denver, who has called my attention to the plight of a distinguished Ukrainian intellectual currently being persecuted for the crime of loving freedom.

The victim of this persecution is Valentyin Moroz, who has been found "guilty" of the "crime" of protesting against Russification—a program which, by any other name, is, in the Ukraine, a brutal attempt to eliminate the Ukrainian language and all traces of Ukrainian culture.

It is my hope that our Government and all freedom loving governments will make representations to the Soviet authorities on behalf of Mr. Moroz, and that an aroused public opinion will cause the Soviet authorities to demonstrate "a decent respect for the opinion of mankind."

SENATOR ALLEN ELLENDER

Mr. GAMBRELL. Mr. President, my home State of Georgia has been the beneficiary through the years of much of the legislation sponsored by our distinguished colleague, Senator ALLEN ELLENDER. During his brilliant career Senator ELLENDER has been a friend to Georgia, to her rural interests, and to the welfare of all her people.

Along with my beloved predecessor, Senator Russell, Senator ELLENDER was responsible for some of the most humane legislation which this body has ever passed—the school lunch program. Georgia is a rural State, and for years we knew we had a friend—Senator ELLENDER—at the helm of the Committee on Agriculture and Forestry.

As the successor to Senator Russell in the chairmanship of the Appropriations Committee, Senator ELLENDER is hard driving and tight fisted, and this combination has produced some of the best appropriations legislation seen here in some time.

On behalf of all the people of my State, I want to say "thank you" to an outstanding American, a gentleman of the South, and an esteemed colleague, and to wish him all the best in the years to come.

SPACE PROGRAM HOLDS A KEY TO A BETTER FUTURE FOR OUR COUNTRY

Mr. CURTIS. Mr. President, yesterday Dr. James C. Fletcher, NASA Administrator, delivered a major address to the National Capitol Section of the American Institute of Aeronautics and Astronautics. His cogent address emphasized the need for America to maintain and im-

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prove its technological base as being vital to future progress in the country and the whole world.

Dr. Fletcher cautioned against a Rip Van Winkle attitude on the space program. He recalled the trauma of 1957 when the U.S.S.R. launched sputnik into space. I agree with him that it would be very dangerous for our Nation to get into the position where once again we had to play catch up ball.

I believe Dr. Fletcher's address will interest all Senators who are concerned about maintaining America's technological excellence. I ask unanimous consent that his speech be printed in the RECORD.

There being no objection, the address was ordered to be printed in the RECORD, as follows:

REMARKS BY DR. JAMES C. FLETCHER

Since this is a get-acquainted session, I would like to share with you today some of the concerns uppermost in my mind after five months at NASA. I believe that in most cases these are matters of mutual concern.

Now one concern—the announced subject of my remarks—has just been graciously taken care of by the Chairman.

I think we have a very sound space aeronautics program underway for this decade, and the Administration and the Congress, in strong bi-partisan action, have given it a high priority so far.

If I may furnish my own theme, I would like to go back to the President's basic statement on national space policy of March 7, 1970, where he expressed confidence that his current budget request would allow our space program to make "steady and impressive progress."

I believe that we have been making steady and impressive progress toward worthwhile goals in space for this decade. I am confident that we can continue to do so in future years.

We have worked hard in NASA in recent months to assure that our plans do indeed permit steady and impressive progress despite the recognized need to keep expenditures and commitments to a minimum during the country's current battle against inflation.

The general outlines of America's space program for the Seventies were established in our current budget. This program, as we see it, is well planned, well pruned, and absolutely vital to the future of this Nation.

The scope and pace of this program will, of course, be debated again next year as it was this year. I have singled out five important points of special relevance to this debate at this time:

First Point. Program continuity must be maintained. I feel very strongly about this. We cannot shut down major programs for several years and then start them up again efficiently. Such practices would be especially wasteful of this country's valuable resources of skilled manpower and experienced management, in industry and in Government.

Second Point. I am very concerned about the health of the aerospace industry. NASA programs have added economic importance at this time because they help stabilize this important industry—this important national resource. This is a very significant reason for maintaining NASA programs up to or near current levels at this time.

Third Point. We have made substantial reductions in the number of NASA civil service positions in recent years. I think we will reach in this fiscal year the *minimum* "institutional base" of NASA required for efficient management of currently approved programs. I will strongly resist any further reductions.

Fourth Point. I consider manned space flight an indispensable part of any prudent space program for the United States. To be

sure, we could save some money in the short run by using only unmanned spacecraft in this decade, but it would not be prudent to do so. I would be a colossal blunder.

It was demonstrated in the Apollo programs, particularly Apollo 15, that man can perform rewarding scientific and operational tasks that machines cannot be programmed to do. We expect to demonstrate this further in Skylab. We also anticipate that astronauts flying the Space Shuttle will be able to greatly decrease the costs and greatly increase the performance of unmanned spacecraft by deploying them in orbit, by servicing them in orbit, or by returning them to Earth for repairs or refurbishment. We simply cannot hope to cut space costs sensibly by posing the question, Men or Machines? We must have both, in space as on Earth, in this decade.

Near-earth space has become a place, a region, a sphere of activity as important to our national interest and security as any place on Earth outside our own borders.

Because near-earth space is a place where men can live and work, it will be inhabited by man. The only question is whether we are willing to allow sole occupancy to the Soviet Union, or any other power. To me, this is unthinkable.

Even assuming that Americans could learn to live comfortably with Russians orbiting overhead while we remained earthbound, the impact on our prestige as a Nation and a world power could be a disaster. To people throughout the world it would appear that the United States had lost its sense of destiny, its national resolve, or its economic viability as demonstrated by its inability to compete in space with the Soviet Union for sustained periods. That, as we have already seen at the time of the first Sputnik, could have an unsettling effect on world affairs and on our own peace of mind and self respect.

Furthermore, it is prudent to continue to develop our capabilities for manned space flight simply because we do not know, and cannot now foresee, what men will discover in space or what uses will be made of space. For this reason alone, it would be risky, if not irresponsible, to ground our astronauts while Soviet cosmonauts operate alone in this new realm, with ever greater proficiency.

For these reasons, I strongly support the Space Shuttle as the next logical step to develop our national capabilities for using space more economically and more effectively, with manned and unmanned spacecraft, for both civilian and defense purposes.

Fifth point. I share the growing concern that the United States is lagging in efforts to develop new technology for commercial and military aviation. We killed the SST while Britain and France went ahead to build the Concorde, and the Soviet Union built a competing version. The Europeans—and our Canadian neighbors—are ahead of us in Short Take Off and Landing aircraft. The question must be asked, How long can we, as a great nation, afford to be mere spectators while others move ahead in aircraft technology?

I believe NASA has a mandate to keep this country in the forefront of aviation technology—which is so important to our domestic economy and world trade position, and to our national security. We clearly need to do more aeronautical research, not less. Our planning reflects this.

For these timely reasons—and other long-standing reasons familiar to you—we are prepared to advocate and defend in any forum where questions arise the general approach and content of our currently approved space and aeronautics programs for the Seventies.

To return for a moment to the topic you inadvertently assigned me—Parking Orbit, Re-entry, or Escape Trajectory?—I can assure you that we do not intend to shift the

gears of our space program into the "park" position; we are geared up for continued steady and impressive progress in those areas of space activity which we consider most rewarding scientifically or most important to our national security.

We have entered the space age. We cannot back out. We cannot re-enter the world we knew before 1957.

I think an active space program will be a part of our national life for as long as we endure as a nation.

Space systems will play an ever increasing role in global and domestic communications; in forecasting, understanding, and perhaps doing something about the weather; in better management of world resources; in the struggle to protect our environment and enhance the quality of life on this planet.

More and more the news of the world, the entertainment of the world, the school lessons of the world, will be delivered through space systems. Air and ship traffic will be directed from space. Space systems will be available to monitor arms limitation agreements that protect the peace of the world. New sources of universal power more awesome by far than the atomic energy in our Sun will be discovered, and understood, and possibly put to use.

Within a few years there will be no time of day or night, year in and year out, when men are not working in orbit above the earth. And it is up to us, in decisions to be made this year in this capital, whether these men in orbit will include Americans.

Before 1957, for all practical purposes, space wasn't there. But today it is. And the only question is, Will Americans be there? This is not the time for the debates of 1958 all over again. If anyone is thinking seriously of de-orbiting the American space program, he is a 20th century Rip Van Winkle who has been asleep for 14 years.

As so far as "escape trajectory" is concerned, we do expect to send our new outer planets spacecraft more than three billion miles on a working journey lasting 10 years, which is about as much "escape" as we can manage in this decade, at least.

I don't believe I need to talk to you in detail about our space program for the Seventies. Many of you helped plan it and are working on it today, in one way or another. I hope that all of you agree that it is about the best program we could put together to meet the objectives set by Congress and the President, considering the recognized need for fiscal restraint at this time.

Despite the strong bi-partisan support given to our plans for the Seventies by the Administration and Congress, there is still a great deal of work to be done to gain the understanding and support our program deserves from the public at large.

It was 14 years ago this week that the first Sputnik went into orbit. Almost overnight, a strong constituency for a major space effort developed in this country. Unfortunately, our very successes in Gemini and Apollo have tended to wipe out that constituency—so long as we lead in space, the American public, understandably enough, has other things to worry about.

But we need to re-establish this constituency. We need broad support from the American people for a sensible, sustained effort that keeps us in the lead—so that we do not have to go into the "catch up" drill again in this decade or the next. We must get people to understand that unless we maintain a well-balanced space program, it will cost much more in the long run to resurrect our capabilities when we find ourselves no longer in the lead.

NASA has an educational job to do—and we need your help. That was the message I had for the annual aerospace luncheon of the Los Angeles Chamber of Commerce when I spoke there last Friday. It is a message I

want to repeat to you today. You are a very articulate group, when it comes to explaining the space program, and you have access to many different channels for reaching the general public.

We need your help to explain not only what we do, but why we do it. We need your help to win broad public support for a program that will keep America first in space, without the goad of fear and self-doubt that comes with being second, with being out-classed.

I am impressed—and concerned—by the size of the investment the Soviet Union is making in space. Their effort is about 60 percent greater than our own at the present time. They show no signs of slackening their effort. Their Salyut space station appears to be merely a forerunner for larger and more versatile space stations. They lead us by a significant margin in planetary exploration and space station capability.

The Space Shuttle should enable us to remain competitive with the Soviet Union in using near-earth space, but only if we do proceed to develop the Shuttle within this decade as we have planned.

I am encouraged by the progress we have made in discussing the possibilities of greater cooperation in space with the Soviet Union. But I want to stress the point that we must continue to increase our own abilities to use space if we want the Soviets to remain interested in cooperation.

I would like to mention very briefly several other major areas of interest or concern to me at this time.

I want very much to continue the process of strengthening our close ties with the Department of Defense, as our charter requires us to do. We want to be sure that the Space Shuttle will serve the needs of all agencies of the Government, including defense needs.

I want to stress the importance of NASA programs in producing new technology—and the importance of new technology for strengthening our economy and increasing our ability to meet pressing social problems and provide jobs and a high standard of living for all of our citizens.

I am concerned about the present shortage of suitable jobs for the young men and women who are finishing their university work in science and engineering. We need this "new blood" now in Government and in industry; and we will feel the loss still more some years hence when we need innovative people at the middle management level with both excellent training and experience in their fields. But how are these young people to get the experience they need—and the country needs them to have—if we do not have challenging jobs for them? This is a serious problem for the country.

As you may know, I am taking part in a panel at the AIAA annual meeting on October 28 on the subject "The Aerospace Professional—What is His Future?" I believe someone suggested a sub-title for this discussion, too: "The Aerospace Professional—Must he Be a Migratory Worker?"

Incidentally, I was very pleased to note that the annual meeting will be devoted in large part to the Keynote theme, "Technology and National Growth." It is very good for the country that you are going into that theme in depth at this time.

I want NASA programs to continue to be excellent examples of how large scale R&D efforts can be managed efficiently and carried through to completion within the American economic and political system. I want to pay especial attention to ways in which NASA experience in systems management can be utilized elsewhere in our society.

I want the space program to continue to be a source of pride, and encouragement, and inspiration for all Americans. Look back over the past 14 years, and see if you can identify any major undertaking or event that has

meant more to us as a people than our successful first steps into space.

Truly significant advances in space will always be inspiring. Take Apollo 15 as an example. Apollo 15 came after 24 previous manned flights and three landings on the Moon, yet it aroused a tremendous sense of American achievement at home and abroad.

As you know, we had already attained President Kennedy's goal set in 1961, and Apollo 15's purpose was almost entirely to reap the maximum scientific benefits and not necessarily for purposes of national prestige. Despite all this, more than 100 million persons watched the mission on television in this country alone, and it is estimated that almost that many more watched in Europe and Japan.

The feeling of many viewers was well expressed, I believe, by a 10-year-old sitting near me just after the launch. When asked by his father what he thought about the launch, he unhesitatingly replied: "I thought I was proud to be an American."

I am concerned that some who use the slogan "new priorities" seem to think that shutting down the space program would help solve pressing social problems. I do not agree. To begin with, this country is already spending 42 cents of every federal tax dollar for human resources programs and 34 cents for national defense, and only 1.4 cents on space.

Diverting space funds to other uses would amount to only a drop in the bucket. But the loss would be great—in terms of a declining economy, a second-rate technology, a dispirited America.

The NASA budget now equals about three-fifths of one percent of the Gross National Product. I am sure the stimulating effect of the space program on the nation's economy adds much more than that to the GNP.

I just don't believe that the kind of America that would ignore the challenge of space would make much progress in other fields either. The kind of America that said no to space, that said let Russia do it would be a country on the way out.

But our country is too young, too vigorous, too wise to think in these negative terms. I believe that with a positive approach to space we can make our space programs pay for themselves many times over, and make America a happier and healthier place because of our space effort.

Nations need exercise just as individuals do. The space effort is the kind of exercise that keeps us on our toes. Tones our muscles, brightens our outlook.

The remark has been made that the future isn't what it used to be. Let us not be dismayed by this apt commentary on the times in which we live. Let us work in the NASA program to make the future more like we want it to be. I think we who are active in space and aeronautics hold the key to a better future for our country and for mankind. It is a mandate given to us by the American people, an immense responsibility. I want very much to work with you in doing what is right for our country in space, and in doing it in the right way at the right pace.

I think we are on the right track. We have planned well for the Seventies. I am anxious to get on with the action.

To summarize:

We have a program that is absolutely vital to the future of this Nation. It is one I intend to fight for. I am counting on you to join me. We have a great and important message to get across.

We can't depend on the "other fellow" to do it—and we certainly don't want to let the Soviets do it for us with another shock like the first Sputnik.

You have my promise that I will seek every opportunity to deliver this message—our message—throughout this country. And, we must all work harder to get this message through clearly and directly to the citizens and tax payers who ultimately determine the destiny of this country.

EIGHTEEN- TO TWENTY-YEAR-OLD VOTER TURNOUT IN SACRAMENTO, CALIF., ELECTIONS

Mr. CRANSTON. Mr. President, there has been a great deal of interest, study, and comment about the voting habits of young people. Most of that comment emphasized the poor voting habits of young persons in the 21- to 30-year-old group in past elections and predictions that 18-year-olds would not improve the statistics.

Now, in the first major test of this theory in California, the so-called experts have been proven wrong.

In the Sacramento municipal elections on September 21, a survey by the county clerk disclosed that 57.8 percent of the under-21 registered voters turned out to vote, topping the general turnout of 52.6 percent. Earlier on July 27, in a water district election in the same county, 45 percent of the under-21 voters turned out, compared with 17.8 percent for the general turnout.

The municipal election turnout of young voters was citywide. All eight city council districts surveyed showed that there was a 50-percent or better turnout of under-21 voters. In one precinct studied, 24 of 29 young voters cast ballots and in another 30 of 38 registered voters actually voted.

A survey of under-21 voters was made possible because of the special registration procedures required by the election. The under-21 voters appear on precinct lists in a special grouping and thus could be identified in the final check of who voted.

Mr. President, this voting record in Sacramento is a very encouraging sign. Young people will participate in the electoral process if they are given a chance, and, obviously, they can influence the outcome of elections in many districts. I congratulate the young people of Sacramento for their participation in this election. I urge young people everywhere to register, participate in campaigning, and then vote.

SOCIAL SECURITY REFORM

Mr. DOMINICK. Mr. President, the distinguished senior Senator from Texas (Mr. Tower) has introduced two bills which seek to reform our social security system.

On September 22, Senator Tower introduced a bill which would give social security recipients the option of either receiving a tax credit for the social security taxes they pay or allowing them to continue to pay the tax and receive additional credit on their benefits.

Earlier in the year Senator Tower introduced S. 639, which would increase the so-called earnings ceiling under social security from \$1,680 to \$3,000. I am pleased to be a cosponsor of this bill.

Recently both the Dallas Morning News and the Dallas Times Herald editorially came out in support of both of these bills. The editorials conclusively point out the need for serious consideration of social security reform along the lines suggested by Senator Tower. Likewise, I believe that the Senate should give this matter most careful attention in the